What can I do to help?

A variety of actions is needed to improve water quality in the Tradewater River and the Green River region. Everyone who lives in the watershed can help. Support, encouragement, and financial assistance will be required to help farmers, loggers, and developers to adopt erosion and sediment controls. Farmers, homeowners, and golf course managers need to reduce the amount of fertilizers and chemicals they apply to their lands. Significant research is underway in the basin to develop karst-sensitive Best Management Practices (BMPs), which are land-use strategies that strive to strike a balance between the need for minimized impairment to the basin's water quality and the economic and cultural needs of the area's residents. Some of these are strictly win-win propositions. Storage and carefully timed application of animal waste as a fertilizer, for example, has in some cases been shown to simultaneously reduce the levels of bacteria entering the groundwater and reduce the need for expensive chemical fertilizers. In addition, people who own property along the creeks and rivers must recognize the importance of trees, shrubs, and tall grasses along the banks and in the floodplains.

The U.S. Dept. of Agriculture's Conservation Reserve Enhancement Program is an important program. It will cover approximately 1 million acres of lands associated with the Upper Green River, including the entire watershed from the dam at Green River Lake to the mouth of Nolin River. This program provides farmers with more flexibility when applying for assistance and provides favorable incentives to farmers for implementing best management practices on their land. Conservation practices that offer the greatest protection of water quality (e.g., riparian buffer) will receive up to twice the payments as under the current continuous conservation program. Other practices that will earn incentive payments include filter strips and sinkhole protection. The program will also feature incentive payments to farmers when they apply in the amount of $100 or $150 per acre for entering into 10- to 15-year contracts, respectively. In addition, the program will allow a farmer to place practices under 30-year or permanent easement protection for additional payment. The overall project will bring approximately $110 million to farmers in eight counties of the Upper Green River Basin.

Better dissemination and use of educational materials and technical information are needed to help people understand the importance of leaving streams alone - avoiding the temptation to channelize them, clearing their vegetation, straightening them out, digging up their gravel bars, and controlling their flows. People who dump trash along creeks or toss litter from their vehicles also need to be educated about how they are hurting their environment. Several new initiatives are under way to address water pollution caused by activities on the land. The 1998 Forest Conservation Act

Practices that reduce impacts from land activities

Activity	Management practices
Row cropping	Use conservation tillage, targeted chemical use, strip cropping, and streamside buffers.
Livestock production	Move facilities uphill, install waste treatment systems, stream fencing, and setbacks.
Logging	Skid on the contour, avoid streams, preserve streamside trees, and install water bars.
Mining	Reclaim mined areas, mix acid and alkaline material, add erosion/sediment controls.
Oil and gas drilling	Store or treat wastes from drilling, control sediments and oils.
Residential yards	Reduce/eliminate lawn/garden chemical use, preserve streamside vegetation.
Urban development	Sediment/erosion/stormwater controls, minimize land clearing and pavement, preserve existing trees.
Industrial facilities	Cover stored materials, control/treat runoff, minimize air/water discharges.
Commercial development	Minimize land clearing, control/treat runoff, reduce parking lots/road sizes.
Stream clearing	Minimize clearing, preserve vegetation, promote greenways/buffers.
Channelization	Decrease flooding by reducing or slowing runoff, restore streamside wetlands.
Construction in floodplains	Limit or eliminate development in floodplains.
Boating	Use marine sanitation devices and pumpout facilities.
ATVs	Use ATVs only in designated areas and maintained trails.

What is Watershed Watch?
Watershed Watch is a citizen-led effort organized to get people down to the river and raise their awareness of watershed issues. The Upper Green River and Tradewater/Lower Green River Watershed Watch groups provide volunteers with extensive training on water quality issues, assessment data, and monitoring methods -- and have a good time while doing it. Several hundred volunteers have visited stream sites all over the basin, collecting field observations on habitat and land use and collecting water samples for pesticides, nutrients, metals, and conventional parameters. Data are analyzed with the assistance of professionals and incorporated into maps. Each fall, the public is invited to attend a watershed conference held in each basin to discuss the results and other watershed issues. There is no cost to participate in the Watershed Watch program -- call or visit the Web site to inquire about becoming a volunteer.

Watershed Watch

Get Connected - Web links
Check out these sites to learn more about the science and practice of watershed management in Kentucky and the nation.

Kentucky's WatershedFramework - http://kywatersheds.org

Ky. Division of Water, Water Watch volunteer monitoring -http://water.nr.state.ky.us/ww/

Ky. Division of Water - http://water.nr.state.ky.us/dow/

Green and Tradewater Rivers Watershed Watch volunteer monitoring projects - http://water.nr.state.ky.us/watch/

Kentucky Dept. for Fish and Wildlife Resources - http://www.kdfwr.state.ky.us/

Kentucky Division of Forestry - http://www.kyenvironment.org/nrepc/dnr/forestry/dnrdof.html

Kentucky Natural Resources and Environmental Protection Cabinet - http://www.kyenvironment.org/

Kentucky Department for Natural Resources - http://www.kyenvironment.org/nrepc/dnr/dnrhome2.htm

Kentucky list of priority impaired ("TMDL") streams - http://water.nr.state.ky.us/303d/

Kentucky District of the US Geological Survey - http://130.11.24.1

Western Kentucky University Technical Assistance Center for Water Quality – http://water.wku.edu

Stream corridor restoration guide - http://www.usda/gov/stream_restoration/newtofc.html

Recreational boating - http://www.kdfwr.state.ky.us

requires trained Master Loggers to be present where timber is being cut, skidded, and loaded to ensure that proper measures are taken to preserve streamside trees, minimize road-building impacts, and reduce erosion. The Kentucky Agricultural Water Quality Act requires farmers to develop soil and water conservation plans to address impacts from plowing, fertilizing, chemical applications, livestock production, and other activities

But progress cannot be realized just by passing laws - people have to get involved if improvements are to be made. Some people may want to help collect water quality information by becoming monitoring volunteers, while others might spread the word that trees and native vegetation should be preserved, especially in new development tracts and along streams in our towns and cities. Those who care about the impacts of trash and other debris may wish to participate in cleanup projects to remove these eyesores from the river and its tributaries. We are beginning to have a better understanding of how we should treat the land and its waters in order to maintain a high level of water quality in our Commonwealth. All of us can become more involved in protecting water quality in our communities simply by paying more attention to activities occurring around us. What is the status of water quality in your community? What industries, mining, or logging activities are currently in existence? What new ones may be coming to your area? How do - or will - any of these impact water quality?

If you would like more information, please contact the Kentucky Division of Water or other members of the Green-Tradewater River Basin Team or check out the Internet addresses listed.

Kentucky Watershed Management Framework

This report has been produced as part of Kentucky's Watershed Management Framework, which is a cooperative approach to improving the health of the state's watersheds. The year 2000 was the first year of a five-year planning and management cycle for the Green and Tradewater River basin. During the second year, several agencies and organizations will conduct extensive monitoring in the region. During the third year, people throughout the region will confer to decide which small watersheds should receive intensive attention during years four and five of the cycle. In year four, improvement plans will be made for the small watersheds selected, and in year five, many agencies and organizations will implement those plans. The cycle then begins again in 2005, with a new evaluation and a new status report. Contributors to this document include members of Green and Tradewater River Basin Team under the Watershed Management Framework.